

Cope (E. D.)

PALEONTOLOGICAL BULLETIN, No. 32.

SECOND CONTRIBUTION

TO THE

History of the Vertebrata

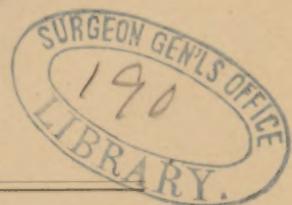
OF THE

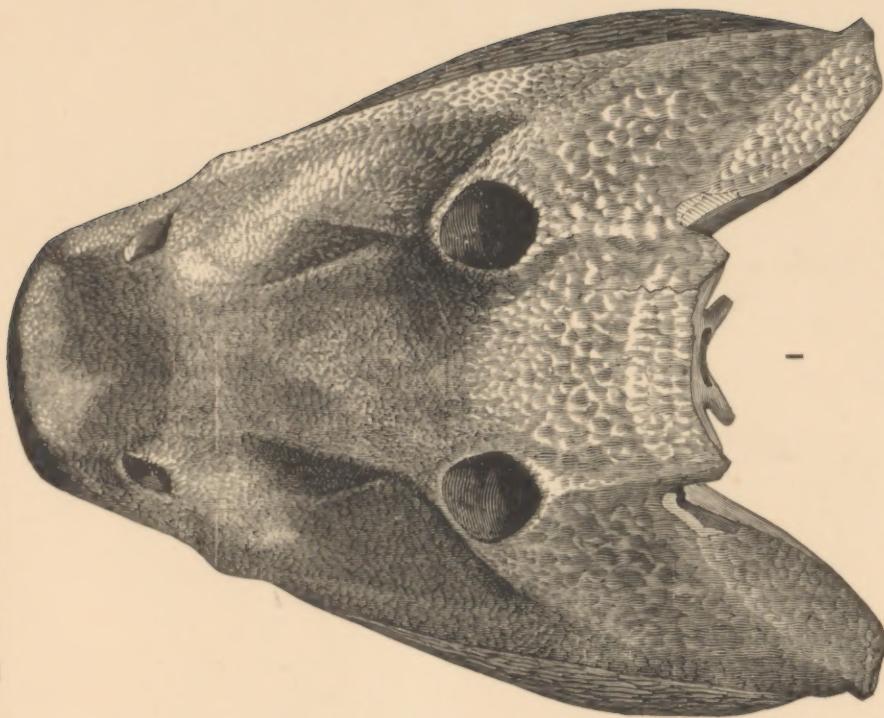
PERMIAN FORMATION OF TEXAS.

FIGURES.

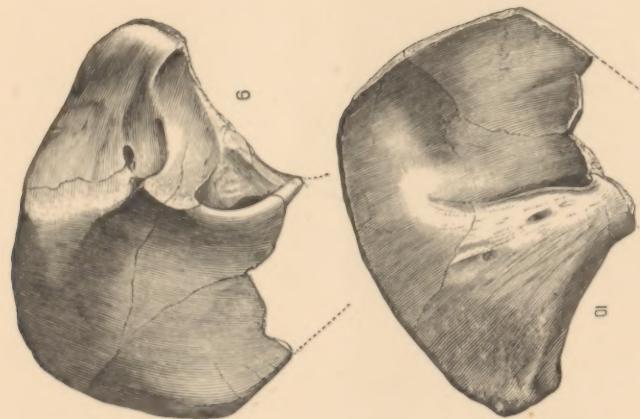
BY E. D. COPE.

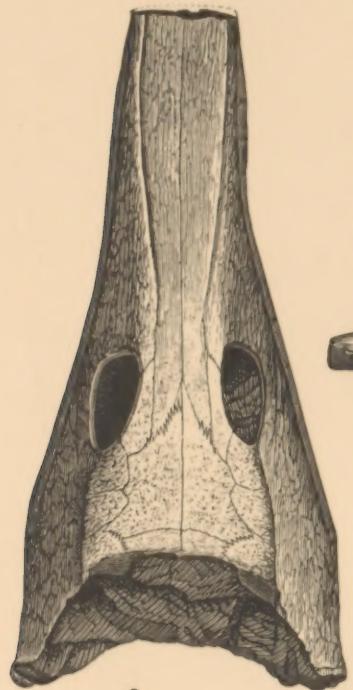
MAY 2, 1881.





ERYOPS MEGACEPHALUS. Fig. 1, $\frac{1}{2}$ nat. size. Figs. 9-10, $\frac{4}{5}$.





a



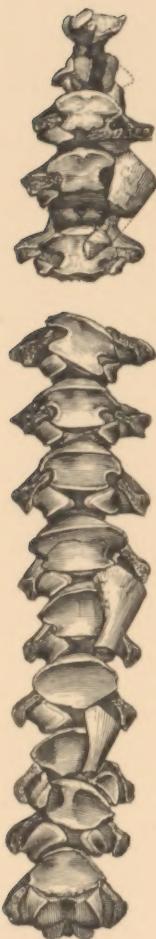
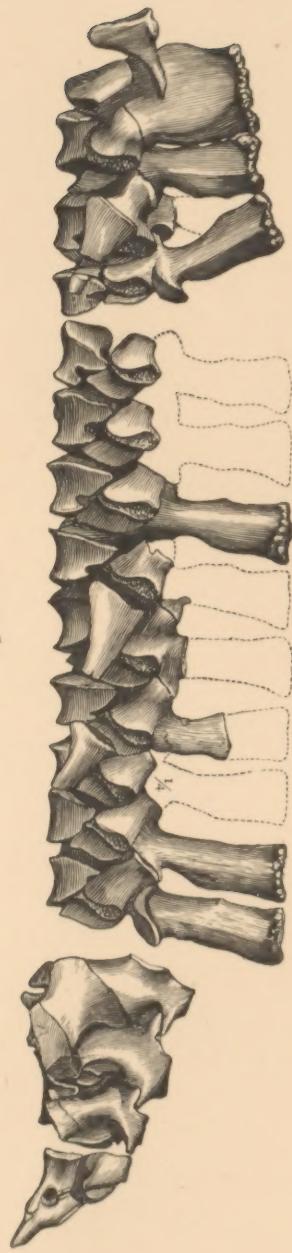
b

2



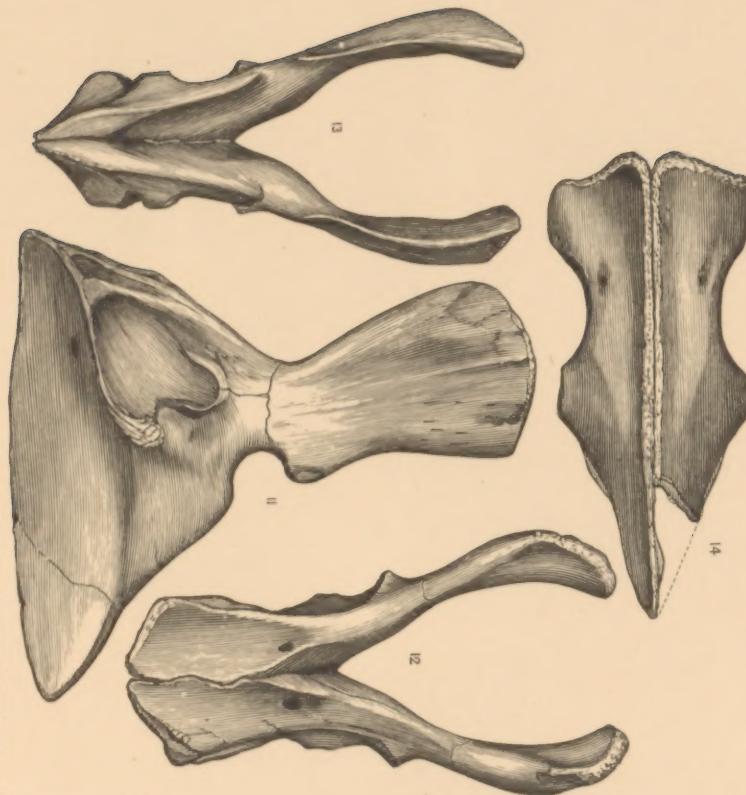
a-b CRICOTUS sp. $\frac{1}{2}$.

2 ERYOPS MEGACEPHALUS. $\frac{1}{5}$.



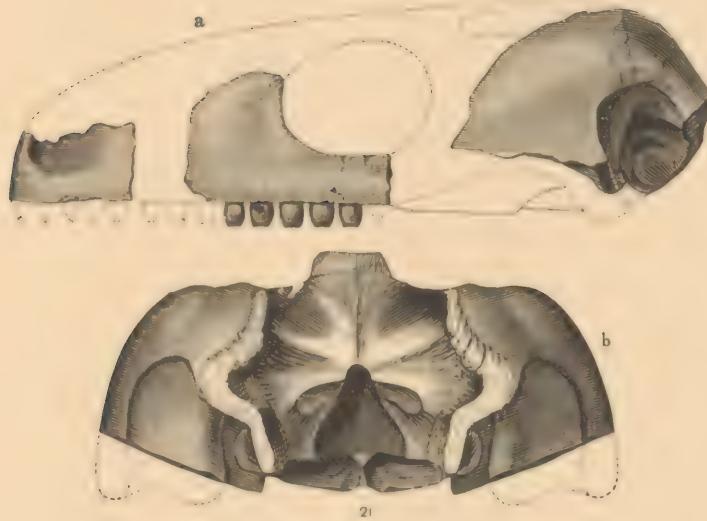
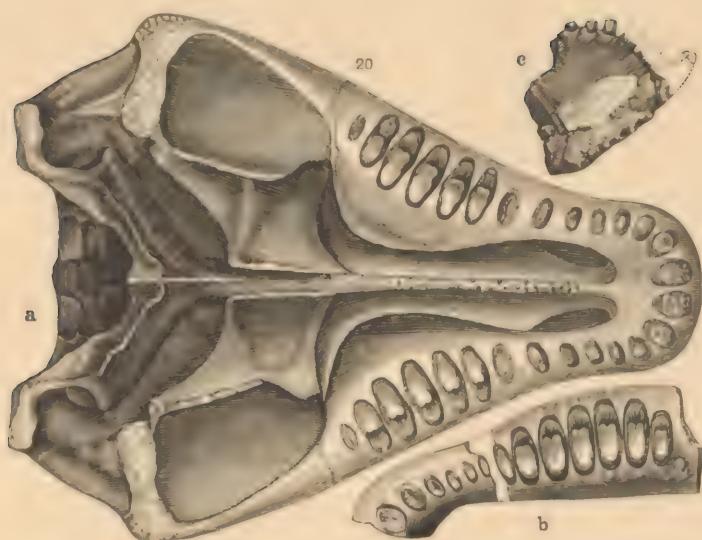
ERYOPS MEGACEPHALUS.

$\frac{1}{4}$.

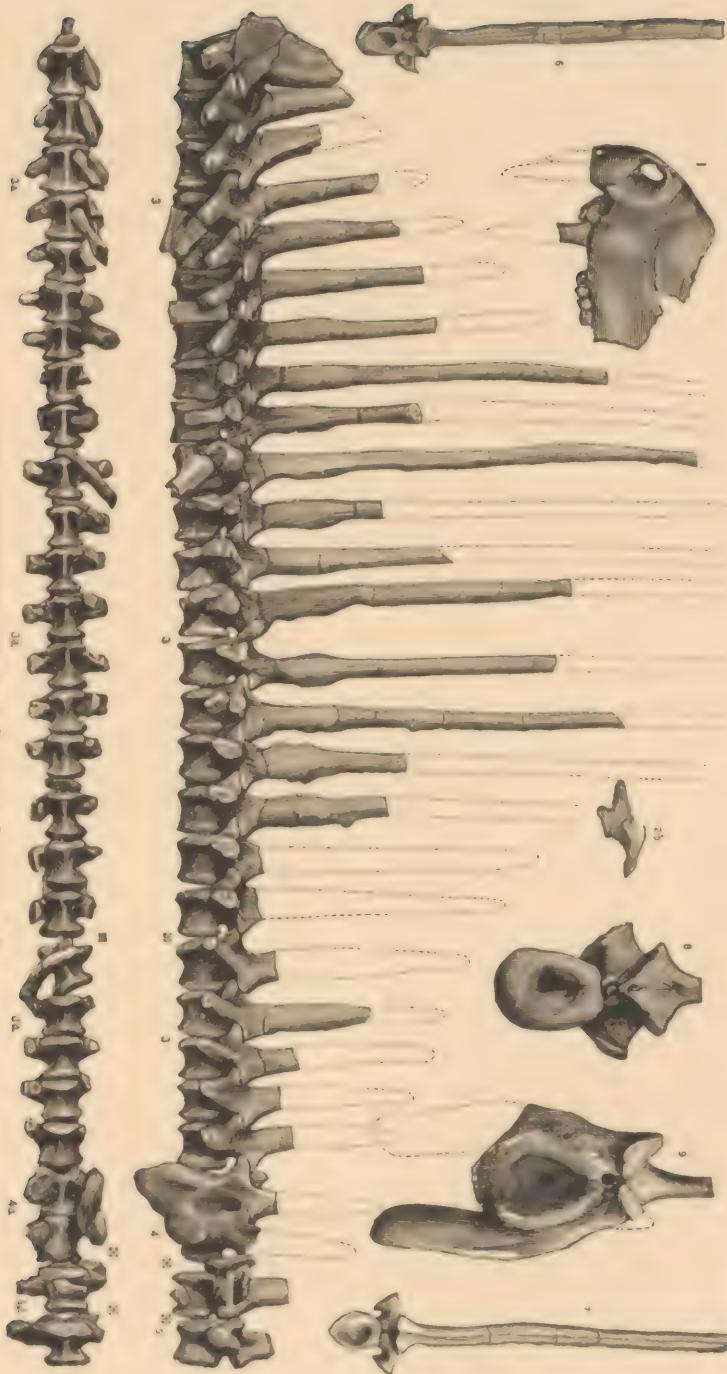


ERYOPS MEGACEPHALUS.

15.



EMPEIDAS MOLARIS. 1.



22-27. *DIMETRODON INCISIVUS*, 4, except 8 and 9, =

(From the *American Naturalist*, February, 1881.)

CATALOGUE OF VERTEBRATA OF THE PERMIAN FORMATION OF THE
UNITED STATES.

PISCES.

CROSSOPTERYGIA.

ECTOSTEORHACHIS Cope; Pal. Bull., No. 32, 1880, p. 19.
1. *E. nitidus* Cope; l. c. Texas.

DIPNOI.

CTENODUS Agass.

2. *C. fossatus* Cope; Proc. Amer. Phil. Soc. 1877, p. 54. Eastern Illinois.
3. *C. gurleianus* Cope; l. c. p. 55. Eastern Illinois.
4. *C. periprion* Cope; Proc. Amer. Phil. Soc. 1878, p. 527. Texas.
5. *C. porrectus* Cope; l. c. Texas.
6. *C. dialophus* Cope; l. c. p. 528. Texas.
7. *C. pusillus* Cope; Proc. Amer. Phil. Soc., 1877, p. 191. Eastern Illinois.

PTYONODUS Cope; Proceed. Amer. Philos. Soc. 1877, p. 192.

8. *P. vinslovii* Cope; Proc. Acad. Philada. 1876, p. 410. Eastern Illinois.
9. *P. paucicristatus* Cope; Proc. Amer. Phil. Soc. 1877, p. 54. Eastern Illinois

SELACHII.

JANASSA Münst.

10. *J. gurleiana* Cope; Proc. Amer. Phil. Soc. 1877, p. 191. Eastern Illinois.
 11. *J. strigilina* Cope; *S. linguaeformis* Cope; l. c. p. 53, not of older authors.
 Eastern Illinois.

12. *J. ordiana* Cope; Texas.

DIPLODUS Agass.

13. *D. ? compressus* Newb. Eastern Illinois.
 14. *D. sp.* Texas.

ORTHACANTHUS Agass.

15. *O. gracilis* Newberry. Eastern Illinois.
 16. *O. quadriseriatus* Cope; l. c. p. 192. Eastern Illinois.

BATRACHIA.

STEGOCEPHALI.

GANOCEPHALA Owen, Cope (emend.) Amer. Natur. 1880, p. 60.

ERYOPS Cope; Proc. Amer. Phil. Soc. 1877, p. 188.

17. *E. megacephalus* Cope; l. c. Texas.

TRIMERORHACHIS Cope; Proc. Amer. Phil. Soc. 1878, p. 524.

18. *T. insignis* Cope; l. c. Texas.

ZATRACHYS Cope; l. c. p. 523.

19. *Z. serratus* Cope; l. c. Texas.

PARIOXYS Cope; l. c. p. 521.

20. *P. ferriculus* Cope; l. c. Texas.

PANTYLUS Cope; Bull. U. S. Geol. Surv. Terr. 1881 (80).

21. *P. cordatus* Cope; l. c. Texas.

EMBOLOMERA Cope, American Naturalist, 1880, p. 510.

CRICOTUS Cope; Proceed. Acad. Phila. 1876, p. 405.

22. *C. gibsoni* Cope; Proc. Amer. Phil. Soc. 1877, p. 185. Eastern Illinois.

23. *C. heteroclitus* Cope; Proc. Acad. Philada. 1876, p. 405. Eastern Illinois; Texas.

REPTILIA.

THEROMORPHA Cope; American Naturalist, 1878, p. 829.

PELYCOSAURIA Cope; l. c.

Diplocaulidæ.

DIPLOCAULUS Cope; Proc. Amer. Phil. Soc. 1877, p. 187.

24. *D. salamandroides* Cope; l. c. Eastern Illinois.

Clepsydropidæ.

PARIOTICHUS Cope; Proc. Amer. Phil. Soc. 1878, p. 508.

25. *P. brachyops* Cope; l. c. Texas.

ECTOCYNODON Cope; l. c.

26. *E. ordinatus* Cope; l. c. Texas.

ARCHÆOBELUS Cope; Proc. Amer. Phil. Soc. 1877, p. 192.

27. *A. vellicatus* Cope; l. c. Eastern Illinois.

EPSYDROPS Cope; Proc. Acad. Philada. 1876, p. 404.

28. *C. colletti* Cope; l. c. p. 407. Eastern Illinois.

29. *C. vinslovii* Cope; Proc. Amer. Phil. Soc. 1877, p. 62. Eastern Illinois.

30. *C. pedunculatus* Cope; l. c. p. 63. Eastern Illinois.

31. *C. natalis* Cope; Proc. Amer. Phil. Soc. 1878, p. 509. Texas.

DIMETRODON Cope; Proc. Amer. Phil. Soc. 1878, p. 512.

32. *D. incisivus* Cope; l. c. Texas.

33. *D. rectiformis* Cope; l. c. p. 514. Texas.

34. *D. biradicatus* Cope; Bull. U. S. Geol. Surv. Terrs. 1880 (81).

35. *D. gigas* Cope; l. c. p. 515. Texas.

36. *D. cruciger* Cope; Amer. Natur. 1878, p. 830. Texas.

THEROPLEURA Cope; Proc. Amer. Phil. Soc. 1878, p. 519.

37. *T. retroversa* Cope; l. c. Texas.

38. *T. uniformis* Cope; l. c. Texas.

39. *T. triangulata* Cope; l. c. p. 520. Texas.
 40. *T. obtusidens* Cope; Pal. Bull. No. 32, 1880, p. 4. Texas.
 METARMOsaURUS Cope; Proc. Amer. Phil. Soc. 1878, p. 516.
 41. *M. fossatus* Cope; l. c. Texas.
 EMBOLOPHORUS Cope; l. c. p. 518.
 42. *E. frutillus* Cope; l. c. Texas.
 LYSOROPHUS Cope; Proc. Amer. Phil. Soc. 1877, p. 187.
 43. *L. tricarinatus* Cope; l. c. Eastern Illinois.

Bolosauridae.

BOLOSAURUS Cope; Proc. Amer. Phil. Soc. 1878, p. 506.
 44. *B. striatus* Cope; l. c. Texas.

Diadectidae Cope; Pal. Bull. No. 32, 1880, p. 8.

DIADECTES Cope; Proc. Amer. Phil. Soc. 1878, p. 505.
 45. *D. sideropelicus* Cope; l. c. Texas.
 46. *D. phaseolinus* Cope; Pal. Bull. No. 32, 1880, p. 9. Texas.
 EMPEDOCLES Cope; Proc. Amer. Phil. Soc. 1878, p. 516.
 47. *E. alatus* Cope; l. c. Texas.
 48. *E. latibuccatus* Cope; l. c. Texas.
 49. *E. molaris* Cope; Pal. Bull. No. 32, 1880, p. 10. Texas.
 HELODECTES Cope; Pal. Bull. 11, No. 32, p. 11.
 50. *H. paridens* Cope; l. c. Texas.
 51. *H. isaaci* Cope; l. c. p. 12. Texas.

SYNOPSIS.

PISCES.....		15
<i>Crossopterygia</i>	I	
<i>Dipnoi</i>	8	
<i>Selachii</i>	7	
BATRACHIA.....		7
<i>Stegocephali</i>	7	
<i>Ganocephala</i>	5	
<i>Embolomera</i>	2	
REPTILIA.....		28
<i>Theromorpha</i>	28	
<i>Pelycosauria</i>		
Total number of species.....		51

—E. D. Cope.

Published February 1, 1881.

